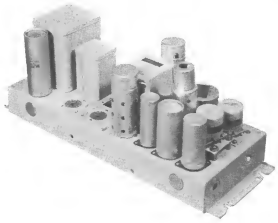
124F AMPLIFIER



GENERAL

The 124F amplifier is a push-pull, two-stage amplifier with self-contained power supply unit and plate supply filter. It is intended for use as a combination monitoring and talk-back amplifier in speech input equipment and through the use of two separate input channels it fulfills either high or low gain requirements.

ELECTRICAL CHARACTERISTICS

Gain

Line Input - High gain: 60 db.
Bridging: 47 db.

Low Level Input - - 104 db.

Source Impedance- Matching: 0 to 1000 ohms.
Bridging: 0 to 25,000 ohms. Low level input: 15 to 250 ohms (nominal 30 and 120 ohms).

Internal Input Impedance - High gain input: 1000 ohms.
Bridging: 4000 ohms.
Low level input: high.

Internal Output Impedance - 3/4 of nominal load impedance.

Load Impedance - 1.75, 7.5, 16, 30, 150 or 600 ohms. Also 70-volt loudspeaker distribution line. See output connection table on schematic.

Output Level - - +41 dbm (12 watts) with less than 5% total harmonic distortion from 50 to 5000 cycles, and +43 dbm (20 watts) with 5% total harmonic distortion at 400 cycles with 600-ohm load.

Output Noise - - -8 dbm (unweighted).

Frequency Response - - - Line input: ±1 db, 50 to 10,000 cycles, -3 db at 15,000 cycles. Microphone input: ±1 db, 50 to 15,000 cycles.

Gain Control

Line Input - 38 db in 2 db steps.

Low Level Input - - 35 db continuously variable.

Power Supply - - 105 to 125 volts, 50 to 60 cycles, 1.1 amperes, 105 watts when used with 12-watt output connection. 105 to 125 volts, 50 to 60 cycles, 1.25 amperes, 125 watts when used with 20-watt output connection.

EQUIPMENT CHARACTERISTICS

Dimensions - - - 19" wide, 7" high, 7-3/8" deep including controls.

Weight - - - - - Approximately 20 pounds.

Finish - - - - - Chassis: Aluminum lacquer.
Front and edge of mat: black enamel or dark aluminum gray.

Mounting - - - - Relay rack, shelf or apparatus cabinet.

ELECTRON TUBES

(These tubes are not supplied with the amplifier and must be ordered separately.)

	W.E. Co.		Commercial
2 - - - - - - - -	348A	or	6J7 or 6J7G
2 - - - - - - - -	350B	or	6L6 or 6L6G
1 - - - - - - - -	274B	or	5T4 or 5U4G
1 - - - - - - - - - - - - - - - - - -			1612 or 6L7 or 6L7G

REFERENCES

ESX-675954 - - - - Assembly and Stock List.

ESX-68049 - - - - - Wiring Diagram.

ESXX-68089 - - - - Schematic.

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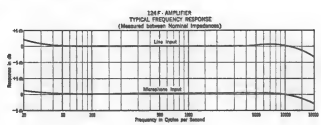

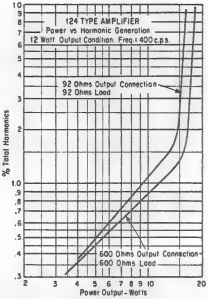

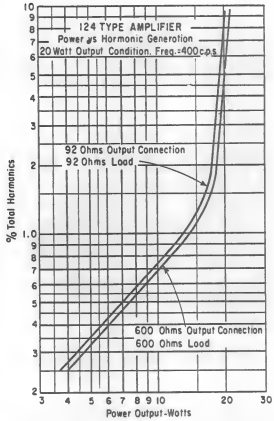

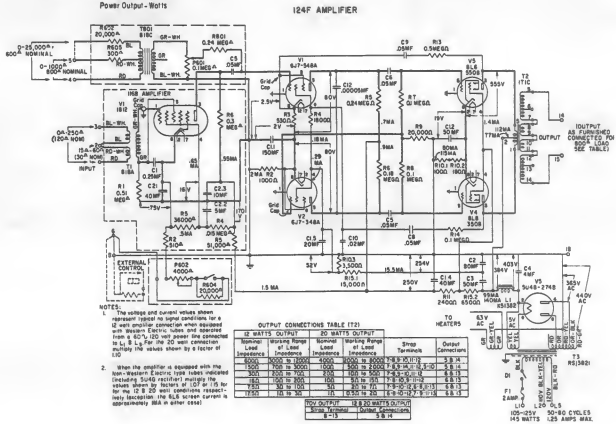

12 WATTS OUTPUT			20 WATTS OUTPUT			
Nominal Load Impedance	Working Range of Load Impedance	Nominal Load Impedance	Working Range of Load Impedance	Strap Terminals	Output Connectors
5000	3000 to 10000	4000	2000 to 8000	7-8	9-10	11-12	5-9, 14
1500	700 to 3000	1000	500 to 2000	7-8	10-11	5-9, 14
300	200 to 700	200	150 to 500	7-8	5-12	11-12	6-9, 13
150	100 to 200	100	50 to 150	7-8	10-11	11-12	6-9, 13
92Ω	50 to 150	70	30 to 70	7-8	9-10	12-5	6-9, 13
15Ω	10 to 30	15	8.5Ω to 20Ω	7-8	9-10	12-7	6-9, 13

600 OHMS OUTPUT	12 & 20 WATTS OUTPUT
Strap Terminals	Output Connectors
6-13	3-9, 14

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